

Hypothermia more likely in Black, Asian newborns

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Newborns of Black and Asian mothers are significantly more likely to experience hypothermia than those born to white mothers, according to a new study. The research will be presented at the [Pediatric Academic](#)

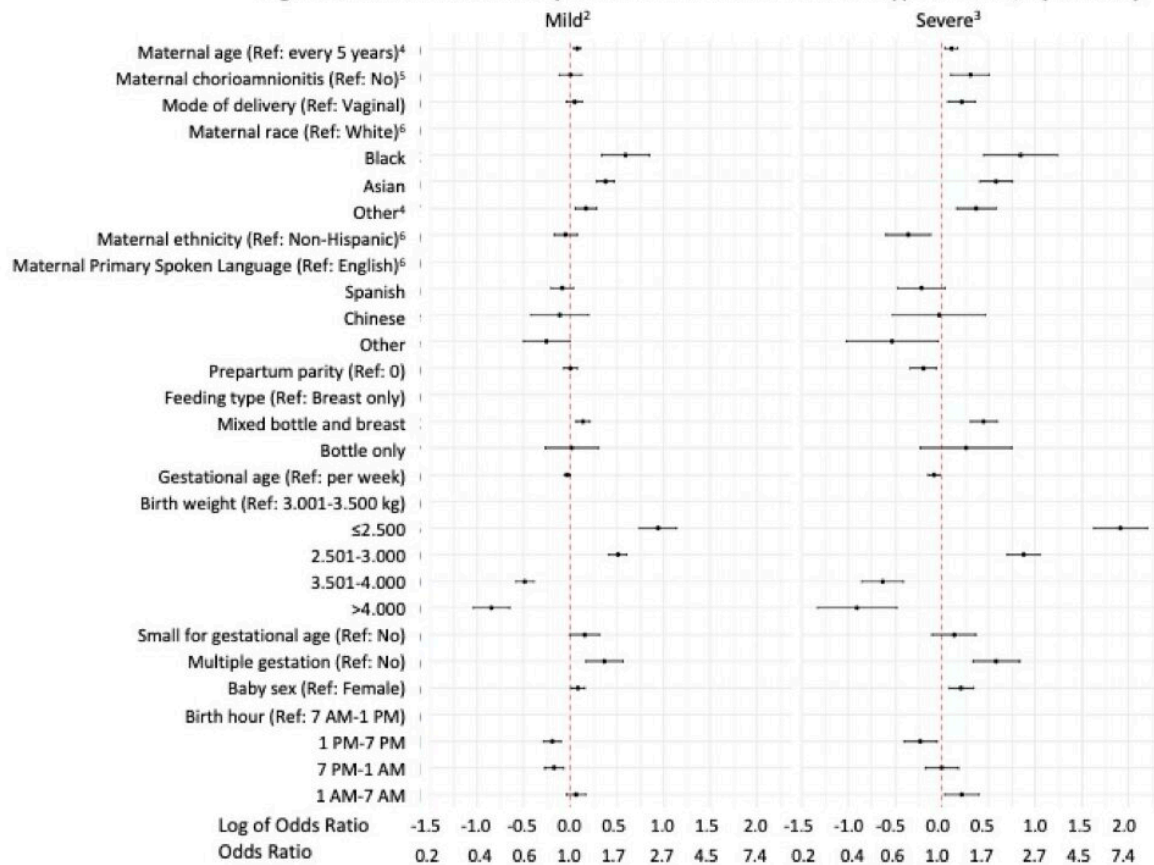
[Societies \(PAS\) 2023 Meeting](#), held April 27-May 1 in Washington, D.C.

Researchers reviewed [electronic medical records](#) of 23,549 infants born at 35 weeks or later and admitted to a children's hospital-affiliated newborn nursery between 2015 and 2021. The study evaluated all recorded temperatures of hospitalized newborns and classified cases of hypothermia—a condition in which body temperature drops below 97.7°F—as mild (one episode of temperature 96.8-97.5°F) or moderate/severe (two or more episodes of temperature less than 97.7°F and/or one or more episodes of temperature 96.8°F or less).

The study found one in five (21.7%) newborns were hypothermic and 21.4% of these were classified as moderate/severe. When compared to white mothers, newborns of Black and Asian mothers had significantly higher odds of mild hypothermia and even higher odds of severe hypothermia.

Both mild and moderate/severe hypothermia were more likely in newborns of lower gestational age, [lower weight](#), and who were both bottle and breastfed. Hypothermia was less likely in newborns born in the late afternoon. Hypothermia in newborns can be caused by [environmental factors](#) or can be a sign of illness, like sepsis.

Figure 1. Multivariable analysis of factors associated with hypothermia, by severity¹



¹The full cohort of 23,539 infants was included in the multivariable analysis. Missing data was handled by multiple imputation.

²"Mild" hypothermia was defined as having a single episode of hypothermia 36.0-36.4°C

³"Severe" hypothermia was defined as having ≥2 episodes of hypothermia and/or ≥1 episode of hypothermia ≤35.9°C

⁴Maternal age ranged from 11 to 56 years old.

⁵Chorioamnionitis was defined as maternal temperature ≥38.0°C prepartum through 1 hour postpartum.

⁶Race, Ethnicity, and Language are self-reported fields. "Unknown" is the default option and includes patients that decline to answer the question. Due to small count, Native American and Pacific Islander race were collapsed with patients that do not self-identify with any of the other listed races, classified as "Other." Similarly, due to small count, Arabic and Korean languages were collapsed with patients that do not self-identify with any of the other listed languages, classified as "Other."

"Hypothermia doesn't only happen in very low weight or premature newborns, but our data and approach to treatment are limited to that

population," said Rebecca Dang, M.D., M.S.Epi, Instructor at Lucile Packard Children's Hospital at Stanford and presenting author.

"Understanding how and why newborns of all gestational ages and sizes experience hypothermia will allow us to provide better, tailored care and address racial disparities made clear by this study."

Study authors note identifying factors that affect hypothermia is critical to targeting evidence-based [hypothermia](#) care efforts toward at-risk newborns.

Provided by American Pediatric Society

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